

Clinical trials of autologous bone marrow stem cells

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1 acute myocardial infarction

Trial	Treatments	Patients	Trials design and methods
autologous bone marrow stem cells vs control			
ASTAMi (Lunde) , 2006 n=50/50 follow-up: 6 months	intracoronary injection of autologous mononuclear BMC (stem cells $0.68 \cdot 10^8$) <i>versus</i> <i>control(Heparanizedplasma)</i>	patients with acute ST-elevation myocardial infarction of the anterior wall treated with percutaneous coronary intervention	parallel group open
BOOSt (Meyer) , 2004 n=30/30 follow-up: 6 months	stem cells mean $2.46 \cdot 10^9$ <i>versus</i> <i>control(Heparanisedplasma)</i>	successful percutaneous coronary intervention (PCI) for acute ST-segment elevation myocardial infarction	parallel group open
Chen , 2004 n=NA follow-up: 6 months	-	-	
Huang , 2006 n=20/20 follow-up: 6 months	intracoronary transplantation of autologous BM-MNC via a micro-catheter right after PCI (stem cells mean $1.8 \cdot 10^8$) <i>versus</i> <i>placebo(Heparanisedsaline)</i>	patients with first onset of acute inferior-wall myocardial infarction aged $< \text{or} = 75$, treated with emergent percutaneous coronary intervention	parallel group open
Karpov , 2005 n=10/10 follow-up: 6 months	intracoronary injection of bone marrow mononuclear cells (stem cells mean $88.5 \cdot 10^6$) <i>versus</i> <i>control</i>	patients with acute myocardial infarction.	parallel group NA
Li , 2007 n=35/23 follow-up: 6 months	autologous peripheral blood stem cell transplantation by intracoronary infusion (stem cells mean $7.25 \cdot 10^7$) <i>versus</i> <i>control</i>	patients with AMI	parallel group open
MAGIC (cell infusion) , 2004 n=10/7 follow-up:	intracoronary infusion of collected peripheral blood stem-cells <i>versus</i> <i>control</i>	patients with myocardial infarction who underwent coronary stenting for the culprit lesion of infarction	

continued...

Trial	Treatments	Patients	Trials design and methods
MAGIC Cell-3-DES (Kang) , 2006 n=25/25 follow-up: 6 months	intracoronary infusion of mobilized peripheral blood stem cells by granulocyte colony-stimulating factor (stem cells $1-2 \cdot 10^9$) <i>versus</i> <i>control</i>	patients with myocardial infarction who underwent coronary revascularization with DES for the culprit lesion	parallel group open
Meluzin HD , 2006 n=22/22 follow-up: 3 months	intracoronar mononuclear bone marrow cells (stem cells 10^8) <i>versus</i> <i>control</i> (<i>Cellsuspensionmedia</i>)	patients with a first acute myocardial infarction	parallel group open
Meluzin LD , 2006 n=22/22 follow-up: 3 months	intracoronar mononuclear bone marrow cells (stem cells 10^7) <i>versus</i> <i>control</i> (<i>Cellsuspensionmedia</i>)	patients with a first acute myocardial infarction	parallel group open
Penicka , 2007 n=14/10 follow-up: 4 months	Intracoronary injection of autologous bone marrow-derived mononuclear cells (stem cells $26.4 \cdot 10^8$) <i>versus</i> <i>control</i>	patients with large anterior acute myocardial infarction	parallel group open
Ruan , 2005 n=9/11 follow-up: 6 months	intracoronary injection of bone-marrow cell (stem cells dose NA) <i>versus</i> <i>control</i> (Diluted serum)	with acute myocardial infarction and anterior descending coronary artery occlusion proven by angiography	parallel group open
Suarez de Lezo (cell) , 2007 n=10/10 follow-up: 3 months	intracoronary infusion of autologous mononuclear bone marrow cells ($9 \cdot 10^8$) <i>versus</i> <i>control</i> (<i>Salinecontaining0.1%heparin</i>)	patients with revascularized anterior wall AMI and depressed left ventricular function (ejection fraction $<45\%$)	parallel group open
TCT-STAMI (Ge) , 2006 n=10/10 follow-up: 6 months	emergent intracoronary autologous bone marrow cell transplantation ($4 \cdot 10^7 SC$) <i>versus</i> <i>control</i>	patients admitted within 24 h after the onset of a first AMI	parallel group NA
autologous bone marrow stem cells vs placebo			
Janssens , 2006 n=33/34 follow-up: 4 months	stem cells mean $1.7 \cdot 10^8$ <i>versus</i> <i>placebo</i> (<i>Salineand5%autologousserum</i>)	patientst with successful percutaneous coronary intervention for STEMI	parallel group double blind

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Trial	Treatments	Patients	Trials design and methods
REPAIR-AMI (Schachinger) , 2006 [NCT00279175] n=95/92 follow-up: 4 months	intracoronary infusion of progenitor cells derived from bone marrow (stem cells mean $2.36 \cdot 10^8$) <i>versus</i> <i>placebo</i> (X – <i>vivomedia</i> and 20% <i>autologous serum</i>)	patients with acute myocardial infarction	double blind
TIME ongoing n=NA follow-up:	autologous bone marrow-derived mononuclear cells (BMMNCs) <i>versus</i> <i>placebo</i>	patients with moderate-to-large anterior AMIs who have undergone successful percutaneous coronary intervention of the left anterior descending coronary artery and have a left ventricular (LV) ejection fraction $\leq 45\%$ by echocardiography.	Parallel groups double blind

More details and results :

- cell-based therapies for acute myocardial infarction in PCI at <http://www.trialresultscenter.org/go-Q313>

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